



WTB27C-3P2444
W27-3

COMPACT PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.

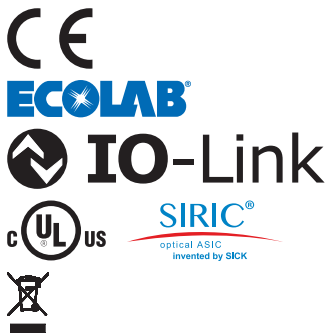


Illustration may differ

Ordering information

Type	Part no.
WTB27C-3P2444	1040120

Other models and accessories → www.sick.com/W27-3



Detailed technical data

Features

Dimensions (W x H x D)	24.6 mm x 80.6 mm x 54 mm
Housing design (light emission)	Rectangular
Sensing range max.	30 mm ... 1,100 mm ¹⁾
Sensing range	100 mm ... 1,100 mm
Type of light	Visible red light
Light source	LED ²⁾
Light spot size (distance)	Ø 15 mm (500 mm)
Wave length	660 nm
Adjustment	Double teach-in button ³⁾ Cable Programmable, via IO-Link, manual, via teach-in button

¹⁾ Object with 90 % reflectance (referred to standard white, DIN 5033).

²⁾ Average service life: 100,000 h at T_U = +25 °C.

³⁾ Programmable, via IO-Link.

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC ¹⁾
Ripple	< 5 V _{pp} ²⁾
Switching output	PNP
Output function	Complementary
Switching mode	Light/dark switching
Signal voltage PNP HIGH/LOW	Approx. V _S - 2.5 V / 0 V
Output current I_{max.}	≤ 100 mA
Response time	≤ 1.9 ms ³⁾
Switching frequency	350 Hz ⁴⁾
Circuit protection	A ⁵⁾ B ⁶⁾ C ⁷⁾
Protection class	II ⁸⁾
Weight	100 g
Housing material	Plastic, ABS
Optics material	Plastic, PMMA
Enclosure rating	IP66 IP67
Description	IO-Link
Ambient operating temperature	-40 °C ... +60 °C
Ambient storage temperature	-40 °C ... +75 °C

- 1) Limit values when operated in short-circuit protected network: max. 8 A.
- 2) May not exceed or fall below U_v tolerances.
- 3) Signal transit time with resistive load in switching mode. Different values possible in COM2 mode.
- 4) With light/dark ratio 1:1 in switching mode. Different values possible in IO-Link mode.
- 5) A = V_S connections reverse-polarity protected.
- 6) B = inputs and output reverse-polarity protected.
- 7) C = interference suppression.
- 8) Reference voltage: 50 V DC.

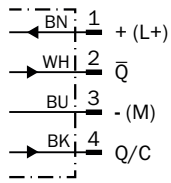
Classifications

ECl@ss 5.0	27270904
ECl@ss 5.1.4	27270904
ECl@ss 6.0	27270904
ECl@ss 6.2	27270904
ECl@ss 7.0	27270904
ECl@ss 8.0	27270904
ECl@ss 8.1	27270904
ECl@ss 9.0	27270904
ECl@ss 10.0	27270904
ECl@ss 11.0	27270904
ETIM 5.0	EC002719
ETIM 6.0	EC002719

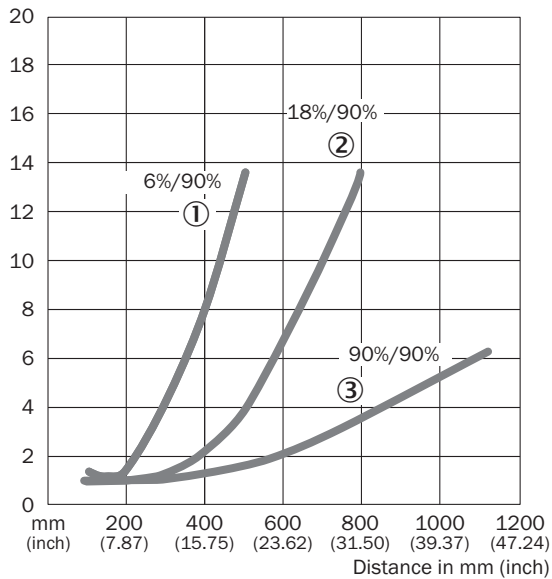
ETIM 7.0	EC002719
UNSPSC 16.0901	39121528

Connection diagram

Cd-098

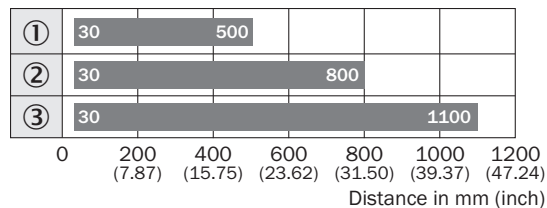


Characteristic curve



- ① Sensing range on black, 6% remission
- ② Sensing range on gray, 18 % remission
- ③ Sensing range on white, 90% remission

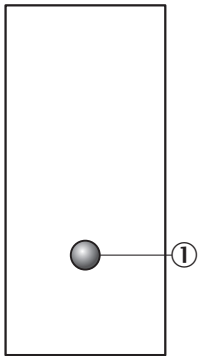
Sensing range diagram



- Sensing range
- ① Sensing range on black, 6% remission
- ② Sensing range on gray, 18 % remission
- ③ Sensing range on white, 90% remission

Adjustments

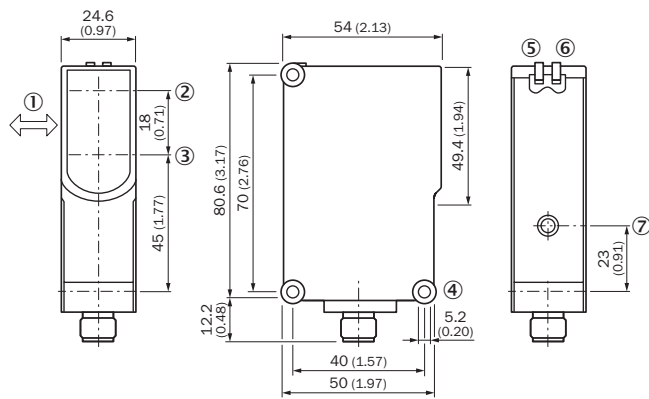
Single teach-in button, IO-Link



① Single teach-in button

Dimensional drawing (Dimensions in mm (inch))

WTB27-3, IO-Link



- ① Standard direction of the material being detected
- ② Optical axis, sender
- ③ Optical axis, receiver
- ④ Mounting hole \varnothing 5.2 mm
- ⑤ LED indicator green: Supply voltage active
- ⑥ LED indicator yellow: Status of received light beam
- ⑦ Adjustment sensing range: single teach-in button

Recommended accessories

Mounting systems

Device protection (mechanical)

Protective housings and protective pipes

Plug connectors and cables

Plug connectors and cables

Connecting cables

Field-attachable connectors

Other models and accessories → www.sick.com/W27-3

Brief description	Type	Part no.
Protective housing for W26, W27-3 and mounting rods with diameter 12 mm ... 20 mm, Zinc plated steel (protective housing), Zinc die cast (clamping bracket), Universal clamp BEF-KHS-KH1 (2022726), mounting hardware	BEF-SG-W27	2039601
Brief description	Type	Part no.
Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YF2A14-050VB3XLEAX	2096235
Brief description	Type	Part no.
Head A: male connector, M12, 4-pin, straight Head B: - Cable: unshielded	STE-1204-G	6009932

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We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

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